

WHAT IS CLAIMED IS:

1. A controller for use with a transceiver in a wireless
2 communications network, comprising:

3 a sensing system configured to sense at least one
4 characteristic associated with at least two channels of said
5 wireless communications network;

6 a modification system configured to update channel information
7 in a channel information table associated with said at least two
8 channels based on said at least one characteristic; and

9 a selection system configured to select one of said at least
10 two channels in accordance with said channel information.

2. The controller as recited in Claim 1 wherein said at
2 least one characteristic is selected from the group comprising:

3 radio frequency (RF) energy associated with a signal on one of
4 said at least two channels,

5 quality of service of a signal on one of said at least two
6 channels, and

7 system configuration parameters entered by a user of said
8 wireless communications network.

3. The controller as recited in Claim 1 wherein said
2 wireless communications network is a wireless local area network.

4. The controller as recited in Claim 1 wherein said
2 modification system is configured to update channel information in
3 a channel information table for each of said at least two channels.

5. The controller as recited in Claim 1 wherein said sensing
system is configured to periodically sense said at least one
characteristic associated with said at least two channels.

6. The controller as recited in Claim 1 wherein said at
least two channels are within a radio frequency band.

7. The controller as recited in Claim 1 wherein said
2 controller transmits a signal on said selected one of said at least
3 two channels using a direct sequence spread spectrum technology.

8. A method of controlling a signal transmission in a
2 wireless communications network, comprising:

3 sensing at least one characteristic associated with at least
4 two channels of said wireless communications network;

5 updating channel information in a channel information table
6 associated with said at least two channels based on said at least
7 one characteristic; and

8 selecting one of said at least two channels in accordance with
9 said channel information.

10. The method recited in Claim 8 wherein said sensing
1 includes sensing at least one characteristic selected from the
2 group comprising:

3 radio frequency (RF) energy associated with a signal on one of
4 said at least two channels,

5 quality of service of a signal on one of said at least two
6 channels, and

7 system configuration parameters entered by a user of said
8 wireless communications network.

9
10. The method recited in Claim 8 wherein said wireless
2 communications network is a wireless local area network.

11. The method recited in Claim 8 wherein said updating
2 includes updating channel information in a channel information
3 table for each of said at least two channels.

12. The method recited in Claim 8 wherein said sensing
2 includes periodically sensing said at least one characteristic
3 associated with said at least two channels.

13. The method recited in Claim 8 wherein said sensing
includes sensing at least one characteristic associated with at
least two channels within a radio frequency band.

14. The method recited in Claim 8 wherein said controlling
2 further comprises transmitting a signal on said selected one of
3 said at least two channels using a direct sequence spread spectrum
4 technology.

15. A wireless communications device for use in a wireless
2 communication network, comprising:
3 an antenna;
4 a radio frequency filter;
5 a power source;
6 a transceiver that transmits and receives wireless signals
7 having a controller, the controller, comprising:
8 a sensing system that senses at least one characteristic
9 associated with at least two channels of said wireless
10 communications network,
11 a modification system that updates channel information in
12 a channel information table associated with said at least two
13 channels based on said at least one characteristic, and
14 a selection system that selects one of said at least two
15 channels in accordance with said updated channel information.

16. The wireless communications device recited in Claim 15
2 wherein said at least one characteristic is selected from the group
3 comprising:

4 radio frequency (RF) energy associated with a signal on one of
5 said at least two channels,

6 quality of service of a signal on one of said at least two
7 channels, and

8 system configuration parameters entered by a user of said
9 wireless communications network.

17. The wireless communications device recited in Claim 15
2 wherein said wireless communications network is a wireless local
3 area network.

18. The wireless communications device recited in Claim 15
2 wherein said modification system updates channel information in a
3 channel information table for each of said at least two channels.

19. The wireless communications device recited in Claim 15
2 wherein said sensing system periodically senses said at least one
3 characteristic associated with said at least two channels.

20. The wireless communications device recited in Claim 15
2 wherein said at least two channels are within a radio frequency
3 band.

21. The wireless communications device recited in Claim 15
2 wherein said controller transmits a signal on said selected one of
3 said at least two channels using a direct sequence spread spectrum
technology.